

ABSTRACT

In a plasma film forming apparatus, two first electrodes 51 connected to a power source 4 and two grounded second electrodes 52 are arranged in the order of the second electrode 52, the first electrode 51, the first electrode 51 and the second electrode 52. A first flow passage 50a formed between the central first electrodes 51 allows a raw material gas (first gas) for being formed into a film to pass therethrough. A plasma discharge space 50b of a second flow passage formed between the first and second electrodes 51, 52 on the both sides allows an excitable gas (second gas) to pass therethrough, which excitable gas is excited by plasma such that the raw material can be formed into a film, but that the excitable gas itself is merely excited but not formed into a film. Those gases are converged at a crossing part 20c between the first and second flow passages and blown off via a common blowoff passage 25a. By this, the apparatus composing members such as electrodes can be prevented from being adhered with a film.